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NEWS IPC8

For general information regarding STN implementation of IPC 8

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=> file medline, uspatful, dgene, embase, wpids, biosis, biotechds, fsta COST IN U.S. DOLLARS SINCE FILE TOTAL

ENTRY SESSION

FULL ESTIMATED COST

0.21 0.21

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FILE 'FSTA' ENTERED AT 16:53:50 ON 26 APR 2006 COPYRIGHT (C). 2006 International Food Information Service

=> s (ZElan 144 or ZElan 145 or ZElan 146) L2 1 (ZELAN 144 OR ZELAN 145 OR ZELAN 146)

=> d 12 ti abs ibib tot

L2 ANSWER 1 OF 1 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

TI Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina pectoris.

AN 2000-400037 [34] WPIDS

AB WO 200031123 A UPAB: 20000718

NOVELTY - A retro-inverted peptide (I) or a derivative of it, which specifically binds to the gastro-intestinal tract receptor HPT1, hPEPT1, D2H or hSI, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a retro-inverted peptide (II) which enhances delivery of an active agent across the gastro-intestinal tract into the systemic, portal or hepatic circulation;
- (2) a composition, comprising (I) or (II), bound to a material comprising an active agent used to treat a mammalian disease or disorder;
- (3) a composition, comprising a chimeric protein bound to a material comprising an active agent used to treat a mammalian disease or disorder.

the protein comprises ZElan 144, ZElan 145 or ZElan 146, or a binding portion of them fused via a covalent bond to a second protein;

- (4) a composition, comprising (I) or (II) bound to a drug containing particle;
- (5) a pharmaceutical composition, comprising the composition of (2) in a carrier for use in vivo in humans;
- (6) an antibody, or a fragment of it, capable of immunospecifically binding (I) or (II);
- (7) a composition comprising (I) or (II) coated onto, absorbed onto or covalently bonded to, the surface of a nano- or microparticle; and

(8) a nano- or microparticle formed from (I) or (II).

ACTIVITY - Hypotensive; antidiabetic; osteopathic; hemostatic; antianemic; cytostatic; antimigraine; antianginal.

MECHANISM OF ACTION - The retro-inversion peptides target qastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation.

USE - The gastrointestinal agents are used to facilitate transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation (claimed). The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraine, and angina pectoris (claimed). The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The antibodies can be used for imaging peptides after in vivo administration, to monitor treatment efficacy, to measure peptide levels in physiological samples, and in diagnostic methods.

ADVANTAGE - None given.

Dwq.0/2

ACCESSION NUMBER:

2000-400037 [34] WPIDS

DOC. NO. CPI:

C2000-120829

TITLE:

Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina pectoris.

DERWENT CLASS:

B04

INVENTOR(S):

O'MAHONY, D J; OMAHONY, D J

PATENT ASSIGNEE(S):

(ELAN-N) ELAN CORP PLC

T2 20060330 (200623)

COUNTRY COUNT:

91

PATENT INFORMATION:

DE 69926531

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### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2000031123	A2	WO 1999-IE117	19991119
AU 2000011744	A	AU 2000-11744	19991119
EP 1131344	A2	EP 1999-972640	19991119
		WO 1999-IE117	19991119
JP 2002530429	W	WO 1999-IE117	19991119
		JP 2000-583950	19991119
EP 1131344	B1	EP 1999-972640	19991119
		WO 1999-IE117	19991119
DE 69926531	Е	DE 1999-626531	19991119
	_	EP 1999-972640	19991119
		WO 1999-IE117	19991119
DE 69926531	Т2	DE 1999-626531	19991119
		EP 1999-972640	19991119
		WO 1999-IE117	19991119

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO				
AU 2000011744	A Based on	WO 2000031123				
EP 1131344	A2 Based on	WO 2000031123				
JP 2002530429	W Based on	WO 2000031123				
EP 1131344	B1 Based on	WO 2000031123				
DE 69926531	E Based on	EP 1131344				
DE 69926531	Based on T2 Based on Based on	WO 2000031123 EP 1131344 WO 2000031123				

PRIORITY APPLN. INFO: US 1998-109038P 19981119

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(FILE 'HOME' ENTERED AT 16:53:15 ON 26 APR 2006)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOTECHDS, FSTA' ENTERED AT 16:53:50 ON 26 APR 2006

L1 28 S (RETRO-INVERTED PEPTIDE)

L2 1 S (ZELAN 144 OR ZELAN 145 OR ZELAN 146)

=> s l1 and (HPT1 or hPEPT1 or hSI or D2H)

L3 9 L1 AND (HPT1 OR HPEPT1 OR HSI OR D2H)

=> s 13 ti abs ibib tot MISSING OPERATOR L3 TI

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

### => d 13 ti abs ibib tot

- L3 ANSWER 1 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN
- Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -
- AN AAB03872 peptide DGENE
- AB This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1, D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a peptide from which a retro-inversion peptide of the invention is created. The peptide is the full length HAX42 amino acid sequence.

ACCESSION NUMBER: AAB03872 peptide DGENE

Retro-inverted peptide used to TITLE:

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

WO 2000031123 A2 20000602 PATENT INFO: APPLICATION INFO: WO 1999-IE117 19991119

PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent English LANGUAGE:

2000-400037 [34] OTHER SOURCE:

GIT receptor targeting peptide ZElan021 (full length HAX42). DESCRIPTION:

ANSWER 2 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN L3

Retro-inverted peptide used to deliver TI active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

AAB03871 peptide DGENE AN

This invention relates to retro-inverted peptides which specifically bind AΒ to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a peptide from which a retro-inversion peptide of the invention is created. The peptide is the full length PAX2 amino acid sequence.

ACCESSION NUMBER: AAB03871 peptide TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

(ELAN-N) ELAN CORP PLC. PATENT ASSIGNEE:

WO 2000031123 A2 20000602 PATENT INFO: APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent English LANGUAGE:

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan018 (full length PAX2).

L3 ANSWER 3 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN

TI Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and

angina pectoris -

AN AAB03870 peptide DGENE

This invention relates to retro-inverted peptides which specifically bind-AB to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a peptide from which a retro-inversion peptide of the invention is created. The peptide is a fragment of HAX42.

ACCESSION NUMBER: AAB03870 peptide DGENE

TITLE: Retro-inverted peptide used to

> deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N)ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan091 (HAX42 fragment).

ANSWER 4 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN L3

ΤI Retro-inverted peptide used to deliver

active agents across the gastrointestinal tract to treat hypertension,

pphread

diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

AN AAB03869 peptide DGENE

AB This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target qastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a peptide from which a retro-inversion peptide of the invention is created. The peptide is a fragment of P31.

ACCESSION NUMBER: AAB03869 peptide DGENE TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602 36

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan031 (P31 fragment).

- L3 ANSWER 5 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN
- TI Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -
- AN AAB03868 peptide DGENE
- AB This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian,

especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a peptide from which a retro-inversion peptide of the invention is created. The peptide is a fragment of PAX2.

ACCESSION NUMBER: AAB03868 peptide DGENE TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602 36

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan129 (PAX2 fragment).

L3 ANSWER 6 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN

TI Retro-inverted peptide used to deliver

active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

AN AAB03867 peptide DGENE

AB This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1,

**D2H** or **hSI**. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a retro-inversion used in the invention. The sequence is a HAX42 14 mer fragment D form retro-inversion peptide.

ACCESSION NUMBER: AAB03867 peptide DGENE TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602 36

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan146 (HAX42 fragment).

L3 ANSWER 7 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN

TI Retro-inverted peptide used to deliver

active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

AN AAB03866 peptide DGENE

AB This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of active agents and/or enhance active agent delivery across the tract into . the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a retro-inversion used in the invention. The sequence is a P31 16 mer fragment D form retro-inversion peptide.

ACCESSION NUMBER: AAB03866 peptide DGENE TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602 36

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan145 (P31 fragment).

L3 ANSWER 8 OF 9 DGENE COPYRIGHT 2006 The Thomson Corp on STN

Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraines and angina pectoris -

AN AAB03865 peptide DGENE

This invention relates to retro-inverted peptides which specifically bind to the gastro-intestinal tract receptor HPT1, hPEPT1,

D2H or hSI. Also included in the invention are a

retro-inverted peptide which enhances the

delivery of an active agent across the gastrointestinal tract (GIT) into the systemic, portal or hepatic circulation. A composition comprising a retro-inverted peptide bound to a material

comprising an active agent used to treat a mammalian disease or disorder is also disclosed in the invention. The retro-inversion peptides target gastrointestinal tract transport receptors to promote in vivo uptake of

active agents and/or enhance active agent delivery across the tract into the systemic circulation. The gastrointestinal agents (containing retro-inverted peptides) are used to facilitate the transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation. The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, haemophilia, anaemia, cancer, migraine, and angina pectoris. The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The present sequence represents a retro-inversion used in the invention. The sequence is a PAX2 15 mer fragment D form retro-inversion peptide.

ACCESSION NUMBER: AAB03865 peptide DGENE

TITLE: Retro-inverted peptide used to

deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, haemophilia,

anaemia, cancer, migraines and angina pectoris -

INVENTOR: O'Mahony D J

PATENT ASSIGNEE: (ELAN-N) ELAN CORP PLC.

PATENT INFO: WO 2000031123 A2 20000602 36

APPLICATION INFO: WO 1999-IE117 19991119 PRIORITY INFO: US 1998-109038 19981119

DOCUMENT TYPE: Patent LANGUAGE: English

OTHER SOURCE: 2000-400037 [34]

DESCRIPTION: GIT receptor targeting peptide ZElan144 (PAX2 fragment).

L3 ANSWER 9 OF 9 WPIDS COPYRIGHT 2006 THE THOMSON CORP on STN

TI Retro-inverted peptide used to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina

pectoris.

AN 2000-400037 [34] WPIDS

AB WO 200031123 A UPAB: 20000718

NOVELTY - A retro-inverted peptide (I) or a derivative of it, which specifically binds to the gastro-intestinal tract receptor HPT1, hPEPT1, D2H or hSI, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a retro-inverted peptide (II) which enhances delivery of an active agent across the gastro-intestinal tract into the systemic, portal or hepatic circulation;
- (2) a composition, comprising (I) or (II), bound to a material comprising an active agent used to treat a mammalian disease or disorder;
- (3) a composition, comprising a chimeric protein bound to a material comprising an active agent used to treat a mammalian disease or disorder, the protein comprises ZElan 144, ZElan 145 or ZElan 146, or a binding portion of them fused via a covalent bond to a second protein;
- (4) a composition, comprising (I) or (II) bound to a drug containing particle;
- (5) a pharmaceutical composition, comprising the composition of (2) in a carrier for use in vivo in humans;
- (6) an antibody, or a fragment of it, capable of immunospecifically binding (I) or (II);
- (7) a composition comprising (I) or (II) coated onto, absorbed onto or covalently bonded to, the surface of a nano- or microparticle; and

(8) a nano- or microparticle formed from (I) or (II).

ACTIVITY - Hypotensive; antidiabetic; osteopathic; hemostatic; antianemic; cytostatic; antimigraine; antianginal.

MECHANISM OF ACTION - The retro-inversion peptides target qastrointestinal tract transport receptors to promote in vivo uptake of

active agents and/or enhance active agent delivery across the tract into the systemic circulation.

USE - The gastrointestinal agents are used to facilitate transport of active ingredients through human or animal gastrointestinal tissue, from the lumen to the portal, hepatic, or systemic circulation (claimed). The compositions containing these agents can be used to treat or prevent mammalian, especially human, diseases or disorders, especially hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraine, and angina pectoris (claimed). The compositions can be administered in vivo to image selected sites or tissues, such as the gastrointestinal tract, by using an imaging agent as the active agent. The antibodies can be used for imaging peptides after in vivo administration, to monitor treatment efficacy, to measure peptide levels in physiological samples, and in diagnostic methods.

ADVANTAGE - None given.

Dwg.0/2

ACCESSION NUMBER:

2000-400037 [34] WPIDS

DOC. NO. CPI:

C2000-120829

TITLE:

Retro-inverted peptide used

to deliver active agents across the gastrointestinal tract to treat hypertension, diabetes, osteoporosis, hemophilia, anemia, cancer, migraines and angina

MC MW NL

pectoris.

DERWENT CLASS:

B04

INVENTOR(S):

O'MAHONY, D J; OMAHONY, D J

PATENT ASSIGNEE(S): (ELAN-N) ELAN CORP PLC

COUNTRY COUNT:

91

PATENT INFORMATION:

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		RW:	AT	ΒE	CH	CY	DE	DK	EΑ	ES	FI	FR	GB	GH	GM	GR	ΙE	IT	KE	LS	LU	
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		W:	ΑE	AL	ΑM	ΑT	ΑU	ΑZ	BA	BB	ВG	BR	BY	CA	CH	CN	CR	CU	CZ	DE	DK	
			FI	GB	GD	GE	GH	GM	HR	HU	ID	IL	IN	IS	JΡ	ΚE	KG	ΚP	KR	ΚZ	LC	

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL

TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000011744 A 20000613 (200043)

EP 1131344 A2 20010912 (200155) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI

JP 2002530429 W 20020917 (200276) 39 EP 1131344 B1 20050803 (200551) EN

R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DE 69926531 E 20050908 (200561) DE 69926531 T2 20060330 (200623)

### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE		
WO 2000031123	A2	WO 1999-IE117	19991119		
AU 2000011744	A	AU 2000-11744	19991119		
EP 1131344	A2	EP 1999-972640	19991119		
		WO 1999-IE117	19991119		
JP 2002530429	W	WO 1999-IE117	19991119		
		JP 2000-583950	19991119		
EP 1131344	B1	EP 1999-972640	19991119		
		WO 1999-IE117	19991119		
DE 69926531	E	DE 1999-626531	19991119		
		EP 1999-972640	19991119		
		WO 1999-IE117	19991119		

DE 69926531	T2	DE 1999-626531	19991119
		EP 1999-972640	19991119
		WO 1999-TE117	19991119

## FILING DETAILS:

PAT	ENT NO	KII	ND		PATENT NO				
ΕP	2000011744 1131344 2002530429	A2	Based Based Based	on	WO	2000031123 2000031123 2000031123			
	1131344 69926531	В1	Based Based Based	on on	ΕP	2000031123 1131344 2000031123			
DE	69926531	T2	Based Based			1131344 2000031123			

PRIORITY APPLN. INFO: US 1998-109038P 19981119

=> e O'Mahony, D/au

MISMATCHED QUOTE IN EXPAND TERM

Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking.

# Refine Search

## Search Results -

Terms	Documents					
L2 and (hPEPT1)	3					

US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

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Recall Text 🔷

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# Search History

DATE: Wednesday, April 26, 2006 Printable Copy Create Case

Set Name Query Side by side Result set DB=USPT; PLUR=YES; OP=ORL3 L2 and (hPEPT1) 3 L3

L3

<u>L2</u> L1 and (hSI) 138 <u>L2</u> <u>L1</u> Retro-inverted peptide 82606 <u>L1</u>

END OF SEARCH HISTORY

# **Hit List**

First Hif Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

## Search Results - Record(s) 1 through 3 of 3 returned.

1. Document ID: US 6780846 B1

L3: Entry 1 of 3

File: USPT

Aug 24, 2004

US-PAT-NO: 6780846

DOCUMENT-IDENTIFIER: US 6780846 B1

TITLE: Membrane translocating peptide drug delivery system

DATE-ISSUED: August 24, 2004

INVENTOR-INFORMATION:

NAME O'Mahony; Daniel J. CITY

STATE ZIP CODE

COUNTRY

Lambkin; Imelda J.

Dublin Dublin

IE IE

US-CL-CURRENT: 514/12

Full Title Citation Front Review	Classification Date Reference	Claims KMMC Draw Desc Ima

2. Document ID: US 6703362 B1

L3: Entry 2 of 3

File: USPT

Mar 9, 2004

US-PAT-NO: 6703362

DOCUMENT-IDENTIFIER: US 6703362 B1

TITLE: Random peptides that bind to gastro-intestinal tract (GIT) transport receptors and

related methods

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

Cagney; Gerard M.

NAME CITY ZIP CODE COUNTRY STATE Alvarez; Vernon L. Morrisville PA Dublin ΙE O'Mahony; Daniel J. Lambkin; Imelda J. Dublin ΙE Patterson; Catherine A. Dublin ΙE Singleton; Judith Rocky Hill NJ Belinka, Jr.; Benjamin A. Kendall Park NJ Carter; John M. Trenton NJ

Seattle

US-CL-CURRENT: 514/12; 424/184.1, 424/185.1, 424/400, 435/69.1, 435/69.2, 436/86, 514/2, 514/21, 530/300, 530/324, 530/350

Full Title Citation Front Review Classification Date Reference Company Citation Clasms MMC Draw Desc Imp

WA

3. Document ID: US 6699973 B1

L3: Entry 3 of 3

File: USPT

Mar 2, 2004

US-PAT-NO: 6699973

DOCUMENT-IDENTIFIER: US 6699973 B1

TITLE: Antibodies to peptides that target GIT receptors and related methods

DATE-ISSUED: March 2, 2004

INVENTOR-INFORMATION:

NAME CITY STATE Z

STATE ZIP CODE COUNTRY

O'Mahony; Daniel Joseph Blackrock IE

Seveso; Michela Padua IT

 $\text{US-CL-CURRENT: } \underline{530/387.9}; \ \underline{424/133.1}, \ \underline{424/135.1}, \ \underline{424/139.1}, \ \underline{424/141.1}, \ \underline{424/145.1}, \\ \underline{424/145.1}, \ \underline{424/14$ 

 $\underline{424/152.1}$ ,  $\underline{424/158.1}$ ,  $\underline{530/388.1}$ ,  $\underline{530/388.24}$ ,  $\underline{530/389.2}$ 

Full Titl	le Citation F	ront   Review	Classification	Date	Reference			Claims		Draw, Des	
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